### § 3931.50

Historic Places that may be present in the lease area; and

- (7) Known cultural or archaeological resources located within the proposed exploration area:
- (d) A description of the methods to be used to conduct oil shale exploration, reclamation, and abandonment of operations including, but not limited to:
- (1) The types, sizes, numbers, capacity, and uses of equipment for drilling and blasting, and road or other access route construction:
- (2) Excavated earth-disposal or debris-disposal activities;
- (3) The proposed method for plugging drill holes: and
- (4) The estimated size and depth of drill holes, trenches, and test pits;
- (e) An estimated timetable for conducting and completing each phase of the exploration, drilling, and reclamation;
- (f) The estimated amounts of oil shale or oil shale products to be removed during exploration, a description of the method to be used to determine those amounts, and the proposed use of the oil shale or oil shale products removed:
- (g) A description of the measures to be used during exploration for Federal oil shale to comply with the performance standards for exploration (§§ 3930.10 and 3930.11);
- (h) A map at a scale of 1:24,000 or larger showing the areas of land to be affected by the proposed exploration and reclamation. The map must show:
- (1) Existing roads, occupied dwellings, and pipelines:
- (2) The proposed location of trenches, roads, and other access routes and structures to be constructed;
- (3) Applicable Federal lease and exploration license boundaries;
- (4) The location of land excavations to be conducted;
- (5) Oil shale exploratory holes to be drilled or altered;
- (6) Earth-disposal or debris-disposal areas:
- (7) Existing bodies of surface water; and
- (8) Topographic and drainage features; and
- (i) The name and address of the owner of record of the surface land, if other than the United States. If the

surface is owned by a person other than the applicant or if the Federal oil shale is leased to a person other than the applicant, include evidence of authority to enter that land for the purpose of conducting exploration and reclamation.

### § 3931.50 Exploration plan and plan of development modifications.

- (a) The operator or lessee may apply in writing to the BLM for modification of the approved exploration plan or POD to adjust to changed conditions, new information, improved methods, and new or improved technology or to correct an oversight. To obtain approval of an exploration plan or POD modification, the operator or lessee must submit to the proper BLM office a written statement of the proposed modification and the justification for such modification.
- (b) The BLM may require a modification of the approved exploration plan or POD.
- (c) The BLM may approve a partial exploration plan or POD, if circumstances warrant, or if development of an exploration or POD for the entire operation is dependent upon unknown factors that cannot or will not be determined until operations progress. The operator or lessee must not, however, perform any operation not covered in a BLM-approved plan.

#### § 3931.60 Maps of underground and surface mine workings and in situ surface operations.

Maps of underground workings and surface operations must be to a scale of 1:24,000 or larger if the BLM requests it. All maps must be appropriately marked with reference to government land marks or lines and elevations with reference to sea level. When required by the BLM, include vertical projections and cross sections in plan views. Maps must be based on accurate surveys and certified by a professional engineer, professional land surveyor, or other professionally qualified person. Accurate copies of such maps must be furnished by the operator to the BLM when and as required. All maps submitted must be in a format acceptable to the BLM. Contact the proper BLM

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office for information on what is the acceptable format to submit maps.

# § 3931.70 Production maps and production reports.

- (a) Report production of all oil shale products or by-products to the BLM on a quarterly basis no later than 30 calendar days after the end of the reporting period.
- (b) Report all production and royalty information to the MMS under 30 CFR parts 210 and 216.
- (c) Submit production maps to the proper BLM office no later than 30 calendar days after the end of each royalty reporting period or on a schedule determined by the BLM. Show all excavations in each separate bed or deposit on the maps so that the production of minerals for any period can be accurately ascertained. Production maps must also show surface boundaries, lease boundaries, topography, and subsidence resulting from mining activities.
- (d) If the lessee or operator does not provide the BLM the maps required by this section, the BLM will employ a licensed mine surveyor to make a survey and maps of the mine, and the cost will be charged to the operator or lessee.
- (e) If the BLM believes any map submitted by an operator or lessee is incorrect, the BLM may have a survey performed, and if the survey shows the map submitted by the operator or lessee to be substantially incorrect in whole or in part, the cost of performing the survey and preparing the map will be charged to the operator or lessee.
- (f) For in situ development operations, the lessee or operator must submit a map showing all surface installations, including pipelines, meter locations, or other points of measurement necessary for production verification as part of the POD. All maps must be modified as necessary for adequate representation of existing operations.
- (g) Within 30 calendar days after well completion, the lessee or operator must submit to the proper BLM office 2 copies of a completed Form 3160-4, Well Completion or Recompletion Report and Log, limited to information that is applicable to oil shale operations. Well logs may be submitted electronically using a BLM-approved

electronic format. Describe surface and bottom-hole locations in latitude and longitude.

# § 3931.80 Core or test hole samples and cuttings.

- (a) Within 90 calendar days after drilling completion, the operator or lessee must submit to the proper BLM office a signed copy of records of all core or test holes made on the lands covered by the lease or exploration license. The records must show the position and direction of the holes on a map. The records must include a log of all strata penetrated and conditions encountered, such as water, gas, or unusual conditions, and copies of analysis of all samples. Provide this information to the proper BLM office in either paper copy or in a BLM-approved electronic format. Contact the proper BLM office for information on submitting copies electronically. Within 30 calendar days after its creation, the operator or lessee must also submit to the proper the BLM office a detailed lithologic log of each test hole and all other in-hole surveys or other logs produced. Upon the BLM's request, the operator or lessee must provide to the BLM splits of core samples and drill cuttings.
- (b) The lessee or operator must abandon surface exploration drill holes for development or holes for exploration to the BLM's satisfaction by cementing or casing or by other methods approved in advance by the BLM. Abandonment must be conducted in a manner to protect the surface and not endanger any present or future underground or surface operation or any deposit of oil, gas, other mineral substances, or ground water.
- (c) Operators may convert drill holes to surveillance wells for the purpose of determining the effect of subsequent operations upon the quantity, quality, or pressure of ground water or mine gases. The BLM may require such conversion or the operator may request that the BLM approve such conversion. Prior to lease or exploration license termination, all surveillance wells must be plugged and abandoned and reclaimed, unless the surface owner assumes responsibility for reclamation of such surveillance wells. The transfer of